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Jinusha Panigrahi

Centre for Policy Research in Higher Education
National University of Educational Planning and Administration
17-B, Sri Aurobindo Marg, New Delhi-110016 (INDIA)

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Centre for Policy Research in Higher Education (CPRHE)
National University of Educational Planning and Administration
17-B, Sri Aurobindo Marg, New Delhi - 110016
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Jinusha Panigrahi**

Abstract

Since 1980s there is a move towards market process in higher education. This is reflected in terms of privatisation of public institutions and encouragement of private sector. Allocation of funds from the government to the higher education institutions (HEIs) was based on a set of criteria. The availability of resources at the institution level was found to be inadequate to meet the growing demand for student enrolment. Consequently, many higher education institutions introduced cost recovery or cost sharing measures and resorted to various resource mobilisation strategies. It seems there has been widening of inequalities between HEIs in access to funds and in terms of requirements and efforts to generate additional resources from other sources. The present paper analyses the methods of fund allocation to HEIs in different countries and adoption of various innovative methods of financing of higher education. The focus of the paper is allocation of resources to public HEIs and various innovative methods to finance higher education in India.

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** Assistant Professor, Centre for Policy Research in Higher Education, National University of Educational Planning and Administration, New Delhi.

Introduction

Education plays an important role in economic growth by improving productivity and increasing national product. With the growing importance of knowledge in the growth process higher education assumes critical importance in policy making. Higher education plays an important role in knowledge production through its Research & Development (R&D activities and in the use of knowledge produced elsewhere through its contribution to production of knowledge based goods. Given its role in development, governments and individuals/households have been increasing their investment in higher education leading to massification and further to universalization of higher education in many countries. But among the major challenges massification brings is maintaining national competitiveness while offering a quality but affordable education across great socio-economic divides (Varghese, 2015). The issue of affordability therefore brings in the role of public sector in financing of higher education.

The public expenditure on higher education in many developed countries and few developing countries as a percentage of total expenditure on education indicates the relative importance given to higher education which has social, economic and political externalities. Traditionally, the Human Capital theory has dealt with the necessity of investment in education with the objective of enhancing productivity. The externalities associated with education and the returns expected from it have necessitated the role of the State in financing of higher education.

But the adoption of structural adjustment policy since 1980s has given emphasis to the application of the market principles in the operation of the higher education system. It assumes higher education as a quasi-public good (Tilak, 2005) where the private returns from higher education is argued to be higher than the social returns. Hence, the higher education institutions mostly in developing countries were compelled to resort to cost sharing and cost recovery measures for financing of higher education.

In Indian context, the National Knowledge Commission (NKC) has also emphasised the significance of making Indian society a knowledge society and achieve inclusive growth in the context of pro-market economic reforms (GOI, 2007).

India has already achieved a stage of massification of higher education with Gross Enrolment Ration (GER) of 23.6 percent during the period 2014-15 (GOI, 2015a). The Twelfth five year plan (GOI, 2013a) target indicates a GER of 25.2 percent by 2017 which implies an additional intake or enrolment of 10 million students in higher education

system. The experience in the recent past has shown a fast expansion of the private sector contributing significantly to the increase in enrolments. Since most of the developed countries massified their higher education systems mainly through public funding, there are arguments for larger share of public investments in higher education sector in India.[1]

Though the state universities and colleges cater to a large number of students, their funding by the central government is only a fraction of that provided to central institutions. Over the years most states have not been able to allocate enough funds to higher education; these meagre funds are thinly spread as a result of being shared amongst many institutions. While plan expenditure on higher education in states is almost stagnant the growing non-plan expenditure put further burden on the scanty resources of the states. Such resource constraints by the state governments against the backdrop of the Fiscal Responsibility and Budgetary Management Act and the new public management strategy (as the government has to negotiate with various social commitments) along with the procedural bottlenecks compel for experimenting alternative innovative methods for the funding of the state higher education system.

The paper focuses on the allocation of resources to public higher education institutions and alternative innovative methods to finance higher education. The paper plans to discuss the following sections:

In the next section there is a theoretical discussion on why public financing of higher education has an important role for the society. Third section deals with the international trends in financing of higher education sector. Fourth section gives a comparative perspective of the resource allocation criteria in different countries. Section five discusses about the different innovative methods of financing higher education and mobilisation of resources. Sixth section deals with financing of higher education in India. Section seven discusses about allocation of resources and other innovative methods of financing higher education in Indian context. The final section gives some concluding observations to the paper.

Why Public Financing of Higher Education Sector?

The role of higher education in knowledge creation and the growing emphasis on transforming the economy in to a knowledge society necessitates greater investment

[1] An overall outlay of ₹ 1,10,700 Crore is proposed for the twelfth plan which is 30 percent more than the eleventh plan outlay (GOI, 2012). This quantum jump is meant for central universities, state universities and colleges, equity initiatives such as student financial support and research and innovations.

in higher education. Besides, the massification of higher education in many countries has compelled the individuals as well as the government to invest more on higher education.

There are many arguments in favour of public financing of higher education. At the same time, those who believe in market based approach to development, support higher education expansion to be financed by the households. The debate on who should finance HE originate from the nature of higher education, whether higher education is a public good or a private good.

A public good is characterised with two major properties (Samuelson, 1954) such as: (i) non-rivalry consumption which indicates that the consumption by one does not diminish that by others and (ii) non-excludability which states that its distribution can't be restricted to selected few when the allocation among the society is taken into consideration (Musgrave and Musgrave, 1989). There are counter arguments regarding whether higher education is a public good or a private good. It can be argued that higher education manifests some characteristics of a public good and some characteristics of a private good. Therefore, higher education, at times is treated as a quasi-public good with positive externalities (Tilak, 2005). Those who cannot pay for it when it is priced may be excluded from its consumption. Similarly, it may exclude some from consumption when there is growing demand for it but has a limited supply. Some who fail to fulfill the eligibility criteria required for admission or lack the credentials for admission or fail to compete with others are excluded from consumption of it.

Higher education is non-rivalrous in the publicly funded higher education institutions (excluding the possibility of congestion due to higher demand for it). Higher education not only benefits its ultimate consumer (i.e. the student) rather benefits the society at large due to the positive externalities associated with it in terms of social cohesion, ethical values, morality and many others. To an extent it is thus argued to be a merit good that is preferred by the community as a whole and meant for societal benefit. The non-market benefits or the spillover social benefits of investment in human capital such as, the patriotic feelings, maintenance of the democratic values and compliance with the cultural norms are difficult to measure as the market is missing to value such externalities (Dreze and Sen, 1996; McMahon, 2006). Due to such market imperfections the burden of financing of higher education is argued to be taken care of by the government (Lleras, 2004).

The public good character of higher education justifies continued public investment in the sector since it will be under-produced or under-supplied if left to the market forces which operate on the considerations of profitability. The neo-liberal thinking and structural adjustment programmes of 1980's argued for a reduced public investment in education and diversion of public investment from higher education to primary education in developing countries. Such a policy resulted in a decline in subsidies to higher education (with the arguments of fiscal constraints that impacts the growth of national income (Khadria, 1989; Tilak, 2004), privatisation of higher education, cost sharing strategies and cost recovery measures, income generating activities in public higher education institutions.

The expenditure on education is argued to be an investment that gives some future returns to the investor whether it is government or private individuals. It ultimately contributes towards the economic growth and productivity of a nation. According to the human capital (HC) theory, education imparts skills to individuals which in turn increase their productive capacity. Higher the level of education higher will be the productivity of the individuals. The principal proponents of HC theory are of the argument that, investment in education gradually increases the productivity and earnings of an individual which ultimately leads to a higher level of economic growth of a nation (Schultz, 1961; Becker, 1964). However, the productivity of the individuals not only depends on the amount invested on education but also on various physical capabilities like ability, motivation or intensity of work and the earnings that impact such morale and aspirations of the individuals (Becker, 1975). The HC theory was also identified with the endogenous growth models where the concept of knowledge and innovations and hence the role of research and development are given more emphasis in the argument for investment in education (Lucas, 1988; Romer, 1989).

The different levels of education gets prior importance in terms of investment depending on the returns expected from such investment. The positive externalities generated by education benefit not only the immediate receiver of education rather benefit the society at large. Such externalities are argued to be generated in a different extent to different levels of education such as primary, secondary and higher education. It is argued that the social returns gradually go on declining and alternatively the private returns go on increasing with the subsequent levels of education (Blaug, 1976; Psacharopoulos, 1987). "It is the private benefits in terms of higher earnings accrued to a more educated individual, over and above a control group of individuals with less education" (Psacharopoulos and Patrinos, 2004, p.4).

Likewise, the indirect benefits of higher studies to the society due to the educated individuals in terms of national harmony and social cohesion are the social returns to investment in higher education (Creedy, 1995). A good number of studies like McMahon (2004) and others argue that higher education instills patriotic feelings, preserves democratic values, and promotes better governance. The social choice approach (Majumdar, 1983) identifies the difficulties involved in the mechanical interpretation of rates of return in the determination of social investment at the macro level. As a critique to the HC theory, the screening and signalling models argue education as a screening device that signals the employers the potential of the individuals in the job market (Arrow, 1972; Spence, 1973). But the information asymmetry associated with the job market cannot be ruled out in such screening process (Akerlof, 1970; Stiglitz, 1975). Such kind of information asymmetry is quite pertinent in higher education.

Overall, the efficiency and equity argument on public financing has got paramount importance in a market economy. To correct market failure in the instances of imperfect market and asymmetric information and for equitable income redistribution public intervention gets significant value (Musgrave and Musgrave, 1989).

International Trends in Financing of Higher Education

The government expenditure on tertiary education as a percentage of Gross Domestic Product (GDP) varies across countries as given in Table 1. China, Macao Special Administrative Region tops the list with 2.28 percent followed by Ukraine (2.17%) and Malaysia (2.07%). Many developed countries like USA (in year 2011) and UK (in 2013) spend 1.36 percent on tertiary education from its GDP. There is a rapid increase in expenditure on tertiary education as a percentage of GDP in developed countries over the years compared to the developing countries.

Table 1: Expenditure on Tertiary Education from Government Sources in Selected Countries as a Percentage of GDP

Country	2008	2009	2010	2011	2012
Argentina	0.77	0.92	0.91	0.97	1.02
Australia	1.04	1.13	1.24	1.18	1.16
Austria	1.44	1.51	1.59	1.51	1.82
Barbados	1.52	1.59	1.91	..	1.70
Bolivia (Plurinational State of)	2.05	2.40	2.27	1.98	1.61
Brazil	0.84	0.87	0.93	0.96	0.97
Burundi	1.10	1.16	1.23	1.05	1.20
China, Hong Kong Special Administrative Region	1.01	2.00	0.98	0.98	1.15
China, Macao Special Administrative Region	0.82	0.85	1.26	1.60	2.28
Finland	1.81	2.06	2.08	2.08	2.05
India	..	1.17	1.20	1.29	1.23
Indonesia	0.32	0.43	0.45	0.50	0.59
Malaysia	..	2.15	1.71	2.13	2.07*
South Africa	0.63	0.66	0.68	0.70	0.76
Spain	1.04	1.11	1.13	1.14	0.99
Sweden	1.73	1.93	1.92	1.89	1.94
Ukraine	2.03	2.37	..	2.12	2.17
United Kingdom of Great Britain and Northern Ireland	0.80	0.76	0.97	1.27	1.36*
United States of America	1.24	1.19	1.39	1.36	..

Source: UIS Statistics, 2016
Note: * indicates data of 2013

An earlier study (Varghese, 2001) argues that during the period of 1985 and 1995 the share of higher education in public funding increased in developed countries whereas it declined in developing countries. The extreme cases are also shown where the share doubled in developed world (e.g. Norway) and halved in developing world (e.g. Nepal). It resulted in declining per student expenditure in developing countries compared to the developed world. The impact of the structural adjustment policy was quite evident in such circumstances. With the argument to reduce subsidies (that benefits the rich than the poor) post structural adjustment policy the alternative funding sources were adopted.

Resource Allocation Criteria: Comparative Perspective

The allocation of resources varies widely across the countries. The rationale for adoption of various funding methods by different countries may be based on the cost

of higher education or the outcome or output based or performance of the universities concerned or negotiation based. The following are the funding mechanisms that are adopted by the funding bodies to finance higher education (Albrecht and Ziderman, 1992).

a. Negotiated funding method: otherwise known as incremental funding model, this method is most widely used as a method for funding of higher education institutions. The quantum of funding is not dependent on the criteria related to the internal working of the university rather depends on the negotiating capacity of the university concerned.

Individual allocation of resources is based on the previous year allocation which increases with each additional year according to the requirement of the university. This method of funding may be based on (i) incremental budgeting; institutions receive a flat increment on their previous budget. All institutions receive the same proportional increment but without bearing any relationship to the cost changes or university performance (e.g. Latin America, South Asia & Africa). (ii) Fixed revenue agreements; governments in agreements with the institutions to allocate a fixed percentage of their total revenue to institutions (e.g. Jordan, Honduras). (iii) ad-hoc negotiating; budgets are allocated based on bilateral negotiations between university representatives and funding body (e.g. Kenya & Nigeria).

Since the negotiating capacity of higher education institutions matters in this method the government concerned exercises a high degree of political control over the whole university system or the colleges concerned. This also shows the dominant role played by the government in the funding decisions. It results in constraints upon the university autonomy on the enrolments, internal allocation of funds and generating additional resources according to their requirements. Therefore, there are uncertainties about the future funding and lack of any incentives for efficiency or encourage inefficiency. It may end up with unequal distribution of resources and impact the quality.

b. Input funding: it is otherwise called cost-based funding where funding is based on the individual costs and institutional costs. Resources are allocated based on unit costs. Individual costs include the expenditure incurred by students on tuition fees, books, stationeries, mess charges, water, electricity, transport, hostel charges etc. The institutional costs include the recurring and non-recurring costs incurred on salaries of teaching and non-teaching staffs, expenses on books

and journals, library equipments, construction and maintenance of buildings, scholarships and fellowships to students.

The unit costs is calculated by dividing the total expenditure with total enrolment or allocating suitable weights to different courses and arrive at unit-costs. The cost parameter takes into account the student-teacher ratio, non-academic staff-student ratio, other elements like salaries of academic and non-academic staff, library, laboratory, building and a few other items.

c. Output funding: the funding by public bodies in this instance is based on the performance of higher education institutions according to their performance in producing graduates or post graduates or PhDs, whatever the case may be, along with the outcome in teaching and research activities. Here along with quantity quality too gets some special concern in funding. The objective is to encourage greater output per unit of resource that would check the high cost of producing graduates or institutional inefficiency or wastage due to dropouts and repetition. For this it puts a control on admission policies and encourages cost recovery measures.

Provision of appropriate incentives to improve performance is one of the challenges faced by this funding method. Too much of incentives may disrupt the universities' activities. Basically, the focus of such method of funding should be on quality as well as quantity but it is generally more inclined towards the quantity in certain instances (e.g. Finland, Denmark, Germany, The Netherlands, and Israel). It becomes uncertain about the availability of funding in future. It puts an impact on the performance of the higher education institutions. It is also less successful in encouraging higher education institutions for diversity and flexibility to adapt quickly to changing labour market needs.

d. Student based funding: resources are given to the students directly rather than through the institutions. The voucher system is one such method of funding. The higher education institutions would be autonomous to set their fees and government supports the student to pay it through voucher. The grants would be less than or equal to the fees to be paid. It is argued to improve access of the students to quality higher education institutions according to their choice and preferences and promotes competition between the students as well as higher education institutions.

Interest subsidised student loan method is another such funding method where the student can choose the HEI for higher studies and seek educational loan provided by the commercial banks. This method is argued to improve access to HE by the deserving students from low economic background, particularly for job oriented courses without being deterred by the cost of education.

The impact of widening inequality among students and subjects due to the choice of market oriented courses cannot be ruled out. The poorer students would be indirectly compelled to attend low cost institutions.

Albrecht and Ziderman (1992) in their study of 35 countries have found that in majority of cases, the allocation of funds is based on negotiations and these are the developing countries. On the contrary, a smaller number of countries adopted input based funding, basically the industrial countries with the exception of some developing countries in Asia and Africa. Comparatively, very few countries used performance-based criteria of funding.

The higher education institutions in Australia receive funds from public sources based on certain performance indicators such as graduation rates, graduate destinations, learning outcomes, work readiness, teaching experience, teaching resources, institutional reputation, community engagement etc. The higher education institutions in Denmark get the majority (30 to 50 percent) of their public resources to finance higher education based on the pass percentage of the students. Such a model necessitates strong quality assurance mechanisms to check the pass rates that need to follow certain basic standards. In England the funding is based on type of institution, number of students, the subjects taught and the amount and quality of research undertaken. Institutions receive most of their funding as a 'block grant'. They are free to spend this according to their own priorities within broad guidelines. In France funding model is based on the total enrolments and 50 percent of total budget for tertiary education is based on formula based funding. Under such system, it is easy to track the institutions regarding their spending and funding information but provide lesser incentives to improve quality of education.

The OECD countries basically rely on output-based or performance based funding where the universities receive grants based on the outcome of their activities. "Within the formula based funding approach there is a great diversity because some countries (e.g. Czech Republic, Finland, The Netherlands, Portugal, some regions of Spain and Belgium) fund on the basis of criteria such as the number of degree awarded or number of graduates whereas for others it is the number of credit accumulated by

students (e.g. Norway and Sweden), the number of students completing each year of study (e.g. some regions of Spain), the average study duration (e.g. Portugal), research indicators (e.g. Chile and Norway), innovation endeavours (e.g. Korea), learning & teaching performance fund (e.g. Australia) and Japan relies on the results of quality evaluation" (Santiago et al., 2008, p. 72). Further, rationalization of resource allocation and managerial efficiency as cost reduction measures in such OECD countries experimented with changing academic and administrative staff ratios, changing pupil-teacher ratios or increasing class size, especially of humanities and increasing class hours etc. (Varghese, 2001).

Student loan method of funding is also a popular method of funding in Scandinavian and African countries (Nigeria and Kenya). UK, USA, China, Brazil, Australia and a few other countries have also explored this method of cost sharing to finance their higher education system. The income contingent loan method of funding is experienced mostly in developed countries due to their developed banking system. The rising number of defaulters is a major problem associated with this method of funding.

The growing participation of the private universities around the globe is the result of gradual withdrawal of government from funding of the higher education sector. Countries like China, Brazil, Nigeria, Indonesia, and Malaysia have growing private sector in higher education.

The study by Carnoy et al. (2014) identifies certain new issues coming up in BRIC countries that resulted from the differentiated system of private higher education institutions (e.g. Brazil and India) i.e. either more elite institutions are able to provide better education by charging higher tuition fee that exclude those who cannot pay or provide education at low tuition fee at non-elite institutions for low income students. In both the instances, quality is argued to be dependent on ability to pay or the capacity to access quality HE depends on household income. "In BRIC countries, the public subsidy to students in elite universities, the vast majority from high social families, is much higher than mass universities and colleges" (Carnoy et al., 2014, p. 375)

The study of changing resource allocation methods by various developed and developing countries finds that the entrepreneurial university widely followed by universities in four countries (UK, Finland, Sweden and Netherlands) as a source of funding, resulted in the development of certain professional or technical disciplines at the expense of the disciplines of humanities and social sciences (Varghese, 2001).

Further, it generates a threat to the faculty in humanities and social sciences too regarding their uncertain future due to growing demand for technical or professional courses.

USA has the competitive funding process (first country to introduce such funding in 1972) with a view to achieve specific targets in order to improve quality, spur innovation and develop the management of higher education institutions. USA created a Fund for Improvement of Post-Secondary Education (FIPSE). Later many other countries followed.

External aid is another external funding method of HE adopted since Jomtien World Conference on Education for All, where it was mostly project based with major focus on capital investments rather recurring expenditures which later on converted to Sector-Wide Approaches (SWAPs) in alignment with the recipient country's policies and programmes (Varghese, 2010). The current day external aid from developed to the developing countries is meant for strengthening bilateral relationships between the two concerned countries.

Mobilisation of Resources

The adoption of new public management has inclined many countries to opt for various cost-sharing measures to finance higher education. Some significant cost-sharing measures across the globe are as follows:

Cost sharing from Student

The major cost recovery from the students is in different forms as studied by Johnstone (2006), they are; introduction of tuition fees in many public institutions earlier not introduced, increasing the tuition fees in many HEIs, encouraging self-financing courses and private sector (charging higher tuition fee), recovery of user charges for usage of selective services such as hostel meals, accommodations, health services, usage of library, registration fees etc., decline in subsidised loan provision and scholarships to the students.

The Graduate Tax Method

It is tax on the graduates who pay certain amount of their income in terms of taxes if their income exceeds certain threshold limit. It is a tax supplement which applies only to graduates rather than being a levy on all taxpayers and it taps additional resources from primary beneficiaries to finance higher education (Greenaway and Heynes, 2004). Depending on the graduates or their total costs of education the rate of graduate tax varies. Thus, it is argued that, the graduate tax

system provides partial insurance unlike a traditional loan system where the outcome of the education process is uncertain[2] (Penalosa and Walde, 2003).

As per the school of thought against this alternative method of financing, graduate tax method is unlikely to deliver significant additional resources (Chapman, 2006) and not conducive to a more flexible and competitive system and social exclusion (Johnes and Johnes, 2004). The method is also argued to be inefficient. "There would be a distortion in tax structure as the graduate tax method of financing of higher education adds to tax administration costs and tax compliance costs" (Chattopadhyay, 2007, p. 4257). It would be unfair and unjust if the graduates, who during their study (particularly, in private unaided institutions) do not get any financial support but pay higher taxes while earning. Because of these shortcomings among others the graduate tax method of financing higher education is not popular particularly among the developing countries like India with their underdeveloped capital market.

Education Vouchers

Going with the argument of provision of subsidy by the government due to positive externalities associated with higher education, one of the methods is to give subsidies directly to the students instead of to the institutions. There are many arguments in favour of giving voucher to the students (Peacock and Wiseman, 1964; Barnes and Barr, 1988; Stager, 1989; Johnes and Johnes, 2004) supporting the efficacy of market mechanism. In case of gross inequality voucher system acts as a mechanism to empower the students financially so that they can choose the course and institutions of their choice. Under certain set criteria of the university, those potential students are given vouchers of certain predetermined amount to spend on their education.[3] Based on the course type, family background and cost structure of the course of study, the value of the voucher is determined.

Such a system would foster competition. It is argued that voucher system would empower the students to a greater extent than at present and universities would have to compete more directly to attract the best students (Johnes and Johnes, 2004). Under competition, university administration will improve to a larger extent, students would compete to give their best performance to study in the best universities and ultimately, the quality of education will be enhanced.

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[2] That affects the investment decisions of the risk-averse individuals.

[3] Though such voucher system is most appropriate for the primary and secondary education, many argue for its relevance in HE too, e.g., Johnes and Johnes, 2004.

Irrespective of all these merits, the voucher system would successively achieve its purpose if the voucher amount covers the full educational cost for the student, or a substantial part of it, who has been given a voucher for higher studies. Otherwise, it would fail to improve access to higher education by the low income students and remain unsuccessful in achieving the policy objective of equal educational opportunities (Hillman, 2003).[4] To eliminate such type of problems associated with the voucher system it is recommended to operate the kind of voucher system that is inversely related to income (Schiefelbein, 1983; Woodhall, 1988).

Student Loans

One among the most popular methods of cost sharing in higher education is the student loans programme which has been adopted by many developed and developing countries successively.

The major objective of this popular cost sharing method is to shift the burden of financing of higher education from the government to the students and the repayment burden is bestowed upon the future generation. Since, education is basically an investment that yields returns in future all those students who are deserving and desire money to invest on their higher studies are encouraged to borrow from financial institutions or the government and spend on their education. So, this method of financing makes education free at the point of consumption and the expenditure is postponed to the future. The amount borrowed is paid back in different installments according to the terms and conditions of respective financial institution.

Ruling out the drawbacks of conventional method of loan financing to a certain extent, the Income Contingent Loan (ICL) method of financing has been successfully implemented in countries with less inequality in income distribution and well developed credit market. Hence, administrative costs are minimised. Similarly, Human Capital Contracts (HCCs) is an additional funding option which could be resorted when the other sources such as family and personal savings are fully exhausted (Lleras, 2004). The objective of this method of financing is the expansion of higher education by increasing the involvement of private markets in financing but still protecting the interests of the marginalized students from poor economic backgrounds. It has been stated that "HCCs are contracts in which students commit part of their future income

[4] Though Hillman talked about the access to equal educational opportunities in school education via the voucher system that covers the total expenses of education, the same principle can be applied to HE too.

for a pre-determined period of time in exchange for capital for financing education" (Lleras, 2004, p. 41).

Financial Instruments

The study by Guarnaschelli et al. (2014) states that since 2001, bonds and guarantees focused primarily on resource mobilization by leveraging the balance sheets of international finance institutions. It is pointed out by the study that, for encouraging commercial investment, public institutions are not provided funding rather promised to repay the borrowed loans in future or accepted the risk that projects may not succeed. There are financial instruments gaining popularity in recent years, in which the private sector shares the risks and rewards from development.

The study by Griffiths and Meinicke (2014) has put forward the relevance of Social Impact Bond (SIB). SIB has been under analysis for years for its substantial contribution towards funding of public services struggling for funds. A SIB is a contract in which socially-focussed investors finance the provision of a specific service, programme or series of programmes (normally delivered by VCS or social enterprise organisations), in return for a pay-out, which is dependent on specific outcomes being achieved as a result of the intervention (Griffiths and Meinicke, 2014). Similarly diaspora bond is also explored in Israel as well as India for social sector investment. All these financial instruments are very much relevant for education sector.

Financing of Higher Education in India

In a mixed economic system, the system of financing indirectly influences every aspect of education, the working of educational institutions, productivity and efficiency of education system, and mould the demand for education. Such an economy like India has approached the state of massification in higher education with GER of 23.6 percent in 2014-15 (GOI, 2015a). It is argued that while public institutions and public funding characterized the growth and expansion of higher education in its elite stage of development the massification of higher education in India has become a market mediated process facilitated mostly through private institutions and financed by the households (Varghese, 2015). The higher education institutions established in India since 1950s and 1960s were public institutions. With the objective of reaching global standard as well as self-reliance the government took the initiative to establish HEIs like Indian Institute of Technology, Indian Institute of Management, All India Institute of Medical Sciences and National Institute of Technology.

The co-existence of both public universities and private colleges getting funding from the government was evident till the adoption of the neo-liberal principles and

SAP in 1980s. Immediately the public universities resorted to self-financing courses to share the cost with the students. Indian policy evolution shows the adoption of privatisation of public universities and encouragement of private sector that caters the growing demand for technical and professional courses and addresses the fiscal constraints of the public sector in funding of higher education.

The concept of "New Public Management" states that market oriented management of public sector would render greater cost efficiency without negative impact. A concept since 1980's argues for a modernised and more efficient public sector. Punnaya Committee (UGC, 1993) suggested cost recovery and income generation to a level of 15-25% of annual recurrent expenditure of the university and Swaminathan Committee (AICTE, 1994) suggested cost recovery from the students and introduction of an education cess from industries.

The 1980s and 1990s witnessed the establishment and fast expansion of self-financing private higher education institutions. The self-financing colleges, which are commonly known as capitation fee colleges (Tilak, 1993) are mostly for-profit private institutions. Andhra, Karnataka, Tamil Nadu and Maharashtra led the private higher education (self-financing) revolution in India especially in technical and professional courses and cater to the demand of students all over India. Looking at the strict rules and regulations to establish private colleges and to attain the authority to award degrees, they sought deemed to be university status to private institutions and many private institutions became deemed universities (Aggarwal, 2009).

The Private Universities Establishment and Regulations Bill introduced in RajyaSabha in August 1995 that stated the rules for the establishment of self-financing private universities was further welcomed by the Ambani-Birla Committee in 2000-01 set up by prime minister's council on trade and industry. It recommended for encouraging private sector to provide HE cost recovery from students along with loans and grants to economically and socially weaker sections.

Since 2002, several state governments have passed Private University Acts. Chattisgarh took lead in establishing officially first ever private university in India (Sri RawatpuraSarkar International University) in 2001 followed by 97 more private universities in the same year (Varghese, 2013). Other states followed the suit; e.g. Assam, Haryana, HP, Gujarat, Odisha, Punjab, UP, and Uttarakhand.

Though the private universities were allowed to establish themselves within the regulations stipulated by UGC Act, 1956 they were given unitary structure but permitted for off-shore campus, and fees charged by them were supposed to be

regulated by UGC and other concerned statutory bodies. Such universities established by individuals and enterprises do not follow the UGC guidelines or have failed to be tracked by UGC. They are not based on clearly defined policies and plans to develop higher education. That brings in issues of quality, equity and relevance by such providers.

The government of India in its discussion paper on Government subsidies in India (GOI, 1997) identified a large set of social and economic services and classified them into public goods, merit goods and non-merit goods with a proposal to reduce subsidies to non-merit goods. Higher education was kept under non-merit goods category with the argument that private benefits of higher education are greater than the social benefits.

The Twelfth Plan suggested for a Student Financial Aid Programme (SFAP) that covers higher education at all levels undergraduate, postgraduate, doctoral and post-doctoral research including general as well as professional education (GOI, 2013a). The major purpose of the programme is to cover considerable amount of educational costs with the provision of scholarship which is subject to revision through a mechanism according to the change in price index.

The study by Azad (1985) has termed the central and state government policies to finance higher education as a 'Great Institutional Divide'; while on the one hand, there are few amply provided central universities and institutions on the other, the ever expanding body of affiliated colleges with ceaseless struggle for their existence living on whatever scarce funds given to them by the government and specialised agencies. Azad identifies that such kind of institutions may be unable to develop due to paucity of resources and again fall in the trap of under-development due to lack of resources. It further impacts quality, equity and excellence in higher education. India in a global world economy with knowledge expansion and hence rapidly expanding higher education system, the situation has aggravated further that needs special attention.

The role of the state in financing of higher education cannot be underestimated, under such instances of knowledge economy and knowledge production. Any policy change at the centre puts significant impact on pattern of financing and therefore on pattern of expenditure of the higher education institutions. The growing emphasis on cost recovery measures after adoption of SAP may have adverse impact on access, equity and quality in higher education. Tilak and Rani (2003) argue from their study of 39 selected universities about the regressive effect of the cost sharing and resource generating activities of the universities to finance higher education. The study found

that increasing reliance on student fees may produce regressive effect on higher education system due to pre-existing higher fees charged by the state universities as well as central universities. They suggest for different cost recovery rates for both kind of higher education institutions which should be higher in the former case compared to the later. Further, it argues for growing imbalance between various disciplines due to consultancy activities and university-industry linkages. The growing demand for professional and technical courses to an extent is resulted from such kind of activities where students look for secure job opportunities after completion of their education.

To minimise inequality, with the expansion of higher education, the pattern of allocation of resources between various activities within any university occupy special importance. The academic and research activities need to be given top priority for any higher education institution that has to compete with others for excellence. The expenditure on administration and other miscellaneous activities may be rationalized giving more importance to student welfare such as stipends and scholarships (Tilak and Rani, 2003).

Allocation of Resources to Higher Education in India

There is a huge challenge to fund the rapidly growing higher education sector in India. The public expenditure on higher education has been under severe budget constraints after new economic reforms and adoption of the neo-liberal principles and encouragement of market principles in the financing of higher education system. Though there is a gradual increase in central government expenditure on higher education but the contribution of state governments in higher education expenditure is worrisome.

As evident from the Table 2, the allocation to university education has seen a gradual decline since the Fifth plan onwards except a quantum jump in the Eleventh plan period. The Twelfth plan has put a target for higher fund allocation with a special emphasis on mobilisation of additional resources from alternative sources by the higher education institutions both at the centre as well as the state level.

Table 2: Composition of Total Allocation on Education in Different Five Year Plans

(Figures in Percent)

Plan	Elementary	Secondary	Adult	University	Technical	Others	Total
First Plan	57.6	5.5	0	7.8	14.2	15	100
Second Plan	34.8	18.7	0	17.6	17.9	11	100
Third Plan	34.1	17.5	0	14.8	21.2	12.4	100
Fourth Plan	50.1	0	1.7	25.2	10.5	12.5	100
Fifth Plan	51.7	0	2.1	27.9	9.4	8.9	100
Sixth Plan	32.1	20.4	5.9	21.4	10.4	9.8	100
Seventh Plan	37.3	24	6.2	15.7	14.2	2.6	100
Eighth Plan	47.7	24	5.2	9.6	10.1	3.4	100
Ninth Plan	57.1	21.3	1.7	8.7	8.1	3	100
Tenth Plan	65.6	9.9	2.8	9.5	10.7	1.5	100
Eleventh Plan	46.5	19.8	2.2	15.5	11.1	4.9	100

Source: Different Plan Documents

In the last three plan periods there has been clear evidence of the deference between allocations made to central and state institutions. Central institutions have been the main beneficiary of the grants. In the Eleventh Five Year Plan this gap has widened further, the funds to states have only been one-sixth of those given to state institutions (GOI, 2013a).

The Table 3 shows the percentage share of various segments of education and therefore the relative importance of higher education in plan and non-plan allocation of resources on education by the education department (revenue account). While primary education has always given a priority due to its greater societal benefits followed by secondary education but the lower share of university education under plan allocation and relatively larger share in non-plan segment indicates public resource constraints for higher education sector.

Table 3: Sector-wise Expenditure (Plan & Non Plan) on Education by Education Department (Revenue Account) in Percentage-Both Centre and States/UTs 2013-14 (BE)

Sector	Plan percentage Share	Non-Plan percentage Share	Total percentage Share
Elementary Education	60.59	45.57	50.72
Secondary Education	19.58	35.53	30.06
Adult Education	0.82	0.12	0.36
Language Development	0.32	0.40	0.37
University & Higher Education	9.29	14.89	12.97
Technical Education	8.12	3.05	4.79
General Education	1.28	0.45	0.73
Total Education	100.00	100.00	100.00

Source: MHRD, 2015

There is a massive expansion in enrolment in higher education during the Eleventh plan period. Of the students studying in public institutions, only 6 percent are enrolled in centrally funded or controlled institutions, while state controlled public institutions cater to about 94% of the students enrolled (GOI, 2013a).[5] Similarly, in terms of the number of institutions, there are only 221 central institutions whereas state institutions are 16, 547 in numbers by the end of Eleventh Plan.[6] But in terms of funding responsibility of these HEIs the share shows a reverse trend compared to enrolment. Though higher education in India is funded by both central and state governments but the share of Central government in funding is about 30 percent whereas State governments' share is 70 percent of the total and that too under the non-plan head (GOI, 2013a). As shown in Table 4, while Central government allocates grants (both plan & non-plan) to only 152 universities and plan grants only to 144 state universities it allocates grants only to 6,354 colleges. The State government allocates grants to 316 universities and 13,024 colleges whereas 191 universities as well as 19,930 colleges in India are neither funded by Central government nor by the State government. Hence,

[5] Out of the total enrolment in 2006-07 only 2.2 percent were enrolled in Central institutions, 43.6 percent were enrolled in State institutions and 54.2 percent students were enrolled in Private HEIs. But in 2011-12 the percentage of enrolment in Central institutions had a meagre 2.6 percent whereas the State HEIs and Private HEIs catered to 38.5 percent and 58.9 percentage of enrolment in higher education (Twelfth Five Year Plan Document). It also indicates how the massive expansion in higher education enrolment is driven by enrolment expansion in private HEIs.

[6] Apart from maximum number of private higher education institutions in the country (i.e. 29, 662) as stated by Twelfth Five Year Plan document (GOI, 2013a).

it indicates that the state HEIs are poorly funded by the Central government compared to central HEIs.

Table 4: Funding Responsibility for Universities and Colleges

Funding Responsibility	Universities	Colleges
Central Government (both Plan and Non-Plan)	152	69
Central Government (Plan only for State institutions via UGC)	144	6,285
State Government (both Plan and Non-Plan)	316	13,024
No funding from Central or State Government (s)	191	19,930

Source: GOI, 2013a

While centrally funded institutions are considered comparatively better in terms of quality, they still remain as islands of excellence, catering to the knowledge requirements of selected few. The large mass of students in state sector remains cut-off from quality higher education and this trend needs to be reversed. State university and colleges face serious financial difficulties that result in poor quality. It has been stated that while state system enrolls more than 15 times of Central institutions but received only 1/3rd of grants in Eleventh plan and half of the central funds went to central institutions (GOI, 2013a).

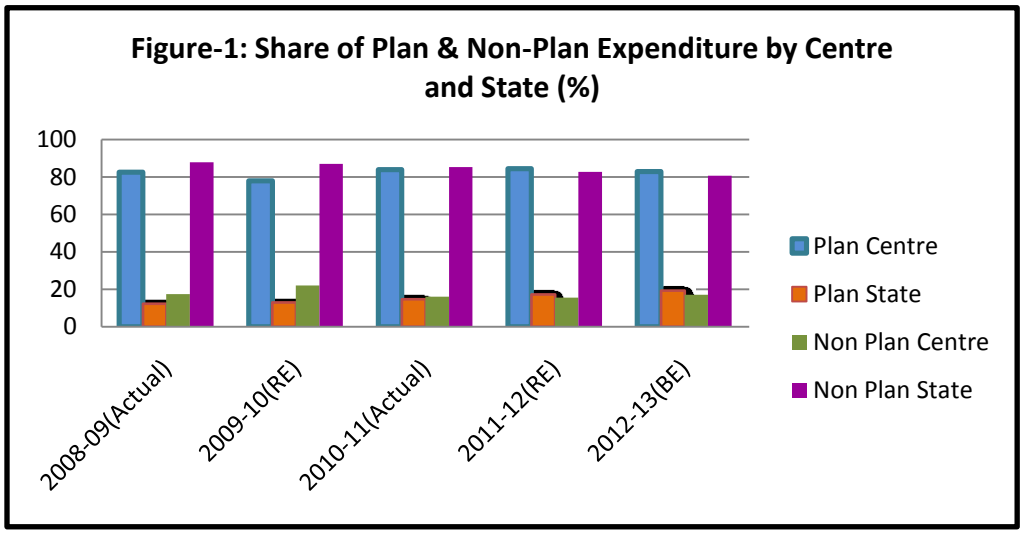
While central government expenditure is mostly under plan head the state government expenditure is in majority under non-plan head. The severe difference in Plan and Non-plan expenditure (as shown in Table 5) on higher education by the central and state government is also a concern that shows the resource availability and dependency in financing of higher education.

Table 5: Share of Plan and Non-plan Expenditure to Total Expenditure on Education

Year	Plan (in %)		Non Plan (in %)		Total (in Crore)[7]	
	Centre	State	Centre	State	Centre	State
2008-09 (Actual)	82.5	12.2	17.5	87.8	34435.67	118386.73
2009-10 (RE)	78	12.92	22	87.08	41148	156762.91
2010-11 (Actual)	83.88	14.63	16.12	85.37	51905.38	181604.73
2011-12 (RE)	84.38	17.18	15.62	82.82	61349.02	221503.07
2012-13 (BE)	82.94	19.26	17.06	80.74	74039.84	249810.14

Source: MHRD, 2014

[7] One Crore is equivalent to ten millions.



Source: MHRD, 2014

State government spending is growing slower than Central govt. spending. Rise in fund levels does not match with the expansion of the higher education system especially after massification of higher education. The institutions funding under non plan head is aggravating over the years whereas the central institutions funded under plan allocation help them to grow and fulfill the larger objectives of higher education. But the state level HEIs catering to majority of enrolment need to be funded under the plan allocation judiciously. Higher education requires significantly larger investments to deliver on multiple objectives to achieve various goals set out in 12th plan. Besides, the funding of a university must have a direct relationship to its objectives and should be designed to promote quality, efficiency, autonomy, accountability and relevance (UGC, 1993).

Another aspect of funding is the central allocations to state institutions in comparison with central institutions. The budgeted provision for education and training is quite higher for both plan and non-plan at the centre under revenue account. The major chunk of it goes to the MHRD than other departments as seen from the Table 6.

Table 6: Budgeted Provision for Education and Training at the Centre (Revenue Account)

Ministry/Department	(₹ in Thousands)		
	2013-14 (B.E.)		
	Plan	Non-Plan	Total
Ministry of Railways	7396828 (0.801)	0	7396828 (0.596)
Ministry of Agriculture	33859700 (3.669)	23521604 (7.390)	57381304 (4.623)
Ministry of Civil Aviation	20400 (0.002)	15450 (0.005)	35850 (0.003)
Ministry of Finance	0	1468882 (0.461)	1468882 (0.118)
Ministry of Defence	0	55975700 (17.587)	55975700 (4.510)
Ministry of Home Affairs	5906766 (0.640)	2581551 (0.811)	8488317 (0.684)
Ministry of External Affairs	53500 (0.006)	414900 (0.130)	468400 (0.038)
Ministry of Environment & Forests	3702434 (0.401)	793975 (0.249)	4496409 (0.362)
Ministry of Health & Family Welfare	42255300 (4.579)	23476020 (7.376)	65731320 (5.296)
Ministry of Information & Broad casting	368000 (0.040)	398800 (0.125)	766800 (0.062)
Ministry of Power	3097300 (0.336)	64600 (0.020)	3161900 (0.255)
Ministry of Rural Development	651000 (0.071)	185000 (0.058)	836000 (0.067)
Ministry of Science & Technology	62441000 (6.766)	19915000 (6.257)	82356000 (6.635)
Ministry of Labour and Employment	2769700 (0.300)	2287221 (0.719)	5056921 (0.407)
Ministry of Shipping, Road Transport & Highways	410010 (0.044)	400200 (0.126)	810210 (0.065)
Ministry of Social Justice & Empowerment	35470200 (3.843)	478500 (0.150)	35948700 (2.896)
Ministry of Culture	12408800 (1.345)	6007900 (1.888)	18416700 (1.484)
Ministry of Tribal Affairs	2134000 (0.231)	0	2134000 (0.172)
Ministry of Urban Development	201000 (0.022)	188400 (0.059)	389400 (0.031)

Table Contd...

Ministry/Department	(₹ in Thousands)		
	2013-14 (B.E.)		
	Plan	Non-Plan	Total
Ministry of Water Resources	1437000 (0.156)	1583800 (0.498)	3020800 (0.243)
Ministry of Youth Affairs& Sports	8239600 (0.893)	1060000 (0.333)	9299600 (0.749)
M/o Consumer Affairs, Food & Pub. Distribu.	35500 (0.004)	655000 (0.206)	690500 (0.056)
Ministry of Earth Sciences	9450000 (1.024)	1179600 (0.371)	10629600 (0.856)
Ministry of Mines	110000 (0.012)	104400 (0.033)	214400 (0.017)
Department of Women and Child Development	717000 (0.078)	177500 (0.056)	894500 (0.072)
Ministry of Coal	116500 (0.013)	0	116500 (0.009)
Ministry of Food Processing Industries	0	2470 (0.001)	2470 (0.000)
Ministry of New & Renewable Energy	0	0	0
Department of Atomic Energy	18500600 (2.005)	27074700 (8.506)	45575300 (3.672)
Department of Textiles	1504100 (0.163)	670830 (0.211)	2174930 (0.175)
Department of Space	15895900 (1.722)	11305800 (3.552)	27201700 (2.192)
M/o. Housing & Urban Poverty	180000 (0.020)	25900 (0.008)	205900 (0.017)
M/o. Planning	0	65200 (0.020)	65200 (0.005)
Ministry of Micro, Small & Medium Enterprise	322900 (0.035)	0	322900 (0.026)
M/o. Chemicals & Fertilizers	2170000 (0.235)	267200 (0.084)	2437200 (0.196)
Ministry of HRD (both depts.)	651070000 (70.546)	135940400 (42.710)	787010400 (63.408)
TOTAL	922895038 (100)	318286503 (100)	1241181541 (100)

Source: MHRD, 2015

Note: The figures in parentheses are the values in percentage to respective total values

From Plan grants MHRD received more than 70 percent followed by the ministry of Science & Technology and by the Ministry of Health and Family welfare. Similarly, under non-plan front it is again the MHRD followed by the Ministry of Defence & the Department of Atomic Energy.

State system receives disproportionately small amounts of grants. The difference in fund allocation to different states over the years to university and technical education indicates that there are few states those are getting an increasing share of budgeted expenditure while there are others who lag behind in such allocation. Overall, there is significant allocation from non- education department in education and training.

It has been pointed out that the expenditure on higher education by the state governments is related to their respective level of economic development quite significantly (Tilak, 2016). Looking at the expenditure patterns on education of the different state governments from its revenue budget in relation to the Gross State Domestic Product (GSDP) there is a wide difference observed amongst states too as shown in Table 7.

The percentage of expenditure on education by the education department with respect to revenue budget is highest by Uttarakhand followed by Tripura and Assam compared to 12.4 percent at All India level. This emphasises the higher public funding of education department of these States compared to other states. At the lower end it is Sikkim and other North-Eastern States excluding Assam, even though the share of education budget of education department to GSDP is higher for these states compared to all India average of 3.49 percent. Similarly, the expenditure on education by other departments is highest in case of Chandigarh followed by Manipur given the national percentage of meagre 3.36 percent. The Table 7 reveals the availability of resources from revenue budget for different states compared to their respective GSDP. The figures also shows the North-east states getting higher public financing compared to other states as the ratio of their revenue budget to their respective GSDP.

Table 7: Budgeted Expenditure on Education and Gross State Domestic Product (GSDP) of States and UTs during 2013-14 (₹ in crores)

States/UTs	Gross State Domestic Product at Current Prices	Total Revenue Budget to GSDP	Education & Training Budget to Total Revenue Budget	Education Budget of Education Department to Total Revenue Budget	Education Budget of Other Department to Total Revenue Budget	Education & Training Budget of Education & Other Department to Total GSDP	Education Budget of Education Department to GSDP
							(in percentage)
Andhra Pradesh	855935	14.81	22.21	15.27	6.94	3.29	2.26
Arunachal Pradesh	13545	34.21	15.1	13.17	1.92	5.16	4.51
Assam	159460	23.95	27.39	24.01	3.38	6.56	5.75
Bihar	343663	21.32	25.95	22.34	3.61	5.53	4.76
Chhattisgarh	185682	18.86	23.72	21.01	2.72	4.47	3.96
Goa	48897	15.36	20.14	14.24	5.90	3.09	2.19
Gujarat	765638	10.6	21.18	17.18	4.00	2.24	1.82
Haryana	388917	11.89	25.77	22.14	3.63	3.06	2.63
Himachal Pradesh	82585	21.37	22.47	19.91	2.57	4.8	4.25
Jammu & Kashmir	87570	32.24	14.4	11.55	2.85	4.64	3.72
Jharkhand	172773	17.62	21.32	17.48	3.84	3.76	3.08
Karnataka	614607	15.85	22.28	18.64	3.64	3.53	2.95
Kerala	396282	15.22	23.47	18.85	4.62	3.57	2.87
Madhya Pradesh	434730	17.11	23.05	18.18	4.88	3.94	3.11
Maharashtra	1510132	10.32	26.78	22.95	3.83	2.76	2.37
Manipur	14324	46.73	17.12	11.59	5.53	8	5.42
Meghalaya	21922	33.45	13.47	11.45	2.02	4.51	3.83
Mizoram	10297	45.23	15.85	14.75	1.10	7.17	6.67
Nagaland	17749	34.6	22.29	20.17	2.12	7.71	6.98
Odisha	272980	18.09	22.09	17.98	4.11	4	3.25
Punjab	317556	13.99	17.71	15.1	2.61	2.48	2.11
Rajasthan	517615	14.72	22.2	20.76	1.44	3.27	3.06
Sikkim	12377	32.18	10.64	8.55	2.09	3.43	2.75
Tamil Nadu	854238	13.8	18.98	16.24	2.74	2.62	2.24
Tripura	26810	25.23	27.91	24.06	3.85	7.04	6.07
Uttarakhand	122897	14.69	27.99	24.49	3.50	4.11	3.6
Uttar Pradesh	862746	19.46	22.45	19.46	2.98	4.37	3.79
West Bengal	706561	13.01	21.53	20.26	1.27	2.8	2.64
A & N Islands	6150	42.79	16.38	15.04	1.34	7.01	6.44
Chandigarh	29076	10.12	21.68	15.71	5.97	2.19	1.59
Delhi	391125	6.23	21.42	19.54	1.88	1.33	1.22
Puducherry	21077	23.55	15.33	11.79	3.54	3.61	2.78
All India	10472807	28.19	15.76	12.4	3.36	4.44	3.49

Source: MHRD, 2015

Similarly, the budgeted expenditure of the education department of universities or higher education shows the diversity between the Indian states in terms of public funding of their respective higher education sector as shown in Table 8.

Therefore, the variation in quality of central and state institutions is largely attributed to the lack of funds at the state level. The National Education Policy of 1986 had pointed out about the need of larger assistance that the state will require from the Central Government for the development of new institutions and funding of existing institutions due to the expansion of the higher education system. The Yashpal Committee (MHRD, 2009) also pointed out in its report that even though state universities are a primary responsibility of the States, the development of students in both state and central institutions is a national responsibility and there cannot be any discrimination between the two. India experiencing the massification of higher education in the era of globalisation and knowledge economy, rather necessitates more funding to state universities and institutions those absorb the ever expanding enrolment of students.

India follows basically a traditional budgetary process in funding of higher education institutions. Allocation of resources is mostly based on requests (that could be activity plans or budget proposals of the institutions) those are submitted by the institutions to their respective funding authorities. The allocation of budget is usually based on previous year's allocation of individual budget items. There would be a kind of negotiation between various representatives of concerned educational institutions and the representatives from their respective funding authorities on changes or increment in budget amounts depending on the projection of cost structure of each budgeted item. The major budgeted items are commonly such as staff salaries, infrastructure maintenance costs and a few new infrastructure items. Funding could be block grants or line item based. The unit cost method is implemented for the determination of line item based grants.

Though there are other funding bodies but UGC was designated as the major fund allocation body to allocate funds to the Central universities, a few deemed universities (other than private deemed universities), state universities (other than private universities) majority of colleges affiliated to the Delhi University, colleges affiliated to Allahabad university and Banaras Hindu University and state government colleges.

Under section 12 (B) of UGC Act funds are allocated to universities and institutions for maintenance and development of the universities. The central and deemed to be universities are given grants both under plan (development) and non-

Table 8: Budgeted Expenditure on University and Higher Education by Education Department (Revenue Account)

(Rupees in Thousands)

Sl. No	State/ Union Territory	2011-2012 (Actual)		2012-2013 (Revised Estimates)		2013-2014 (Budget Estimates)	
		Total	Percentage to total BE on Education	Total	Percentage to total BE on Education	Total	Percentage to total BE on Education
1	Andhra Pradesh	19007536	13.37	26081564	15.56	26442825	13.66
2	Arunachal Pradesh	294547	6.22	439640	6.55	450166	7.37
3	Assam	8951961	14.7	14920740	17.44	13828442	15.08
4	Bihar	17832936	18.1	26026409	18.14	33934945	20.74
5	Chhattisgarh	3085471	7.45	4008820	7.17	5808750	7.9
6	Goa	1219968	15.15	1409732	14.99	1593600	14.9
7	Gujarat	9964714	8.67	11409774	8.76	10241867	7.35
8	Haryana	7805465	12.6	8488626	11.11	9556337	9.34
9	Himachal Pradesh	2024651	7.61	2491957	7.87	2407331	6.85
10	Jammu & Kashmir	2874552	11.55	4038184	13.79	4337118	13.3
11	Jharkhand	4391037	11.92	6530699	13.06	6629785	12.46
12	Karnataka	16038724	13.49	18980874	12.23	23899896	13.17
13	Kerala	12859292	14.14	15829989	16.41	19205896	16.89
14	Madhya Pradesh	7309944	7.69	9997326	8.18	11100317	8.21
15	Maharashtra	26646626	9.66	37900363	11.81	42214647	11.81
16	Manipur	1317352	22.32	1413357	19.64	1479826	19.07
17	Meghalaya	872293	9.65	838719	11.31	1102202	13.13
18	Mizoram	750177	13.39	1037860	15.08	962875	14.01
19	Nagaland	523569	7.33	692031	5.71	678973	5.48
20	Odisha	11432090	16.44	12153818	15.06	13880963	15.63
21	Punjab	3863018	7.56	10002879	13.68	5312191	7.92
22	Rajasthan	6436666	5.67	9344481	6.88	8806771	5.57
23	Sikkim	145032	5.45	162620	5.18	173963	5.11
24	Tamil Nadu	15078061	10.31	15093222	9.06	18099521	9.45
25	Tripura	470579	3.99	665964	4.86	775718	4.77
26	Uttarakhand	1590475	4.82	2017865	5.24	2047701	4.63
27	Uttar Pradesh	13617575	5.61	14797358	5.03	25282052	7.74
28	West Bengal	18378992	12.24	21616431	12.54	20884467	11.22
29	A. & N. Islands	190044	5.93	214236	5.63	240049	6.07
30	Chandigarh	963862	27.5	1166855	28.45	1247541	26.99
31	Dadra & Nagar Haveli	…	…	150000	14.46	40000	3.79
32	Daman & Diu	27675	5.33	42700	6.87	50700	7.06
33	Delhi	1389328	4.04	1545900	3.76	1667000	3.5
34	Lakshadweep	121911	13.25	…	…	…	…
35	Puducherry	785927	17.49	760520	15.43	1301828	22.24
	Total (States & UTs)	218262050	10.4	282271513	11.07	315686263	10.99
	Total Centre	112043277	18.59	121758600	18.22	158918900	20.19

Source: MHRD, 2015

plan (maintenance) schemes and programmes whereas assistance to state universities is made under plan schemes. General plan development grants to the universities is made on the basis of outlays determined and communicated to the universities under which UGC assists each eligible university for the overall development covering the aspects namely, enhancing access, ensuring equity, imparting relevant education, improving quality and excellence, making university administration more effective, providing more faculty improvement programmes, enhancing facilities for students, augmenting research facilities and any other plans of the university (UGC, 2013). General development assistance to the universities provided in the form of plan block grant for campus development, construction/renovation, equipment and infrastructure, innovative research activities, university-industry linkages, development of ICT, extension activities, publication, workshop/seminar, faculty development programme etc.

But in reality major chunk of the fund of UGC of around 95 percent goes to the central universities. When UGC was established there were very few higher education institutions in the country. Though about 9,360 affiliated colleges, basically undergraduate colleges, are technically under the purview of UGC they do not get assistance as they do not fulfill the minimum eligibility criteria of funding from UGC such as infrastructure facilities and availability of human resources. Section 12 (B) pre supposes all facilities and infrastructure to be in place before the funding by UGC begins. But the colleges and universities which lack such facilities are the ones which should be supported first.

The linking up of funding with National Assessment and Accreditation Council (NAAC) parameters in recent years has further complicated the allocation process making many such state level colleges remain outside the purview of UGC funding. Under the Plan and Development Grants (14 merged scheme grants) of UGC there are many such aided colleges those are not eligible for such grants as they are not coming under the 12 (B) regulation of UGC for which major criteria is accreditation by NAAC[8]. Many such colleges do not have internal quality assurance cells which can make them eligible for accreditation considered as one among other criterion. The Eleventh Plan (GOI, 2008), set a target of covering about 6000 colleges and 150 universities targeting on under-served areas to strengthen them by providing each college and university ₹ 2.0 crore and ₹ 10 crore respectively, based on Detailed Project Report (DPR) for UGC

[8] This observation is based on some of the preliminary findings of present research study of the Centre for Policy Research in Higher Education, NUEPA on "Financing of Public Higher Education Institutions in India".

assistance. But, such provision had also required side by side the willingness of states to generate funds internally. Further, many of those universities and colleges who receive development grants from UGC find it to be untimely, less and insufficient[9]. To compensate such HEIs to continue with the development activities of their respective institutions, one time grant at the rate of ₹ 1 crore and ₹ 5 crores was announced during the eleventh plan period based on DPR subject to matching commitments on funding and reforms from the Centre, States, and institutions (GOI, 2008).

Table 9: UGC's Plan Budget Estimate for 2013-14 under Eight Heads

(Rupees in Crores)

S.No.	Sectors	Total
1.	Enhancing Aggregate Access	4410.00
2.	Equity	175.20
3.	Quality and Excellence	388.20
4.	Research Projects	441.20
5.	Relevance and Value Based Education	128.00
6.	ICT Integration	3.00
7.	Governance and Efficiency Improvement	6.20
8.	Others (New Schemes and Committedliability of XI Plan)	165.20
	Total	5717.00

Source: GOI, 2014

UGC's Plan Budget Estimate for the year 2013-14 is distributed under the following eight sectors and the total amount allocated under those heads as mentioned in the MHRD annual report (2013-14) given in the Table 9.

The allocation of plan budget as mentioned is for both the Central and state level HEIs under eleventh plan which includes around 144 universities and 6285 colleges at state level apart from the 152 universities and 69 colleges at Centre (GOI, 2013a). It provides non-plan grants to central universities for meeting the recurring expenditure on salaries of teaching and non-teaching staff and for maintenance of laboratories, libraries, buildings also for obligatory payments such as taxes, telephones, postages, electricity and water bills. An amount of ₹ 113574 lakhs was released during the Eleventh plan.

[9] This observation is also based on the some of the preliminary findings of the present research study of the Centre for Policy Research in Higher Education, NUEPA on "Financing of Public Higher Education Institutions in India". The Eleventh Five Year Plan document also pointed out about insufficiency of developmental funds allocated to many state level universities and colleges due to budget constraint.

Under section 2 (f) and 12 (B) of the UGC Act 1956, the state universities are eligible for funds from UGC. In the year 2014-15 total 155 state universities (out of 156 excluding Agriculture and Medical universities), 64 colleges of the University of Delhi and 8526 colleges[10] were allocated development assistance (GOI, 2015b). Apart from Development assistance other assistance during 2014-15 includes, assistance to 484 autonomous colleges, universities (15) and colleges (135) with potential for excellence (UPE & CPE), Special assistance for Science, Humanities & Social sciences, Faculty development programme in colleges and IQAC, Assistance for women study centres in various universities and colleges, P.G. merit scholarships for university rank holders, Single girl child and SC/ST, Rajiv Gandhi National Fellowship for SC/ST, Post doctoral fellowships, JRFs, Emeritus fellowship, Major and Minor research projects, Inter university centre, National facility centre, Cultural exchange programme etc.

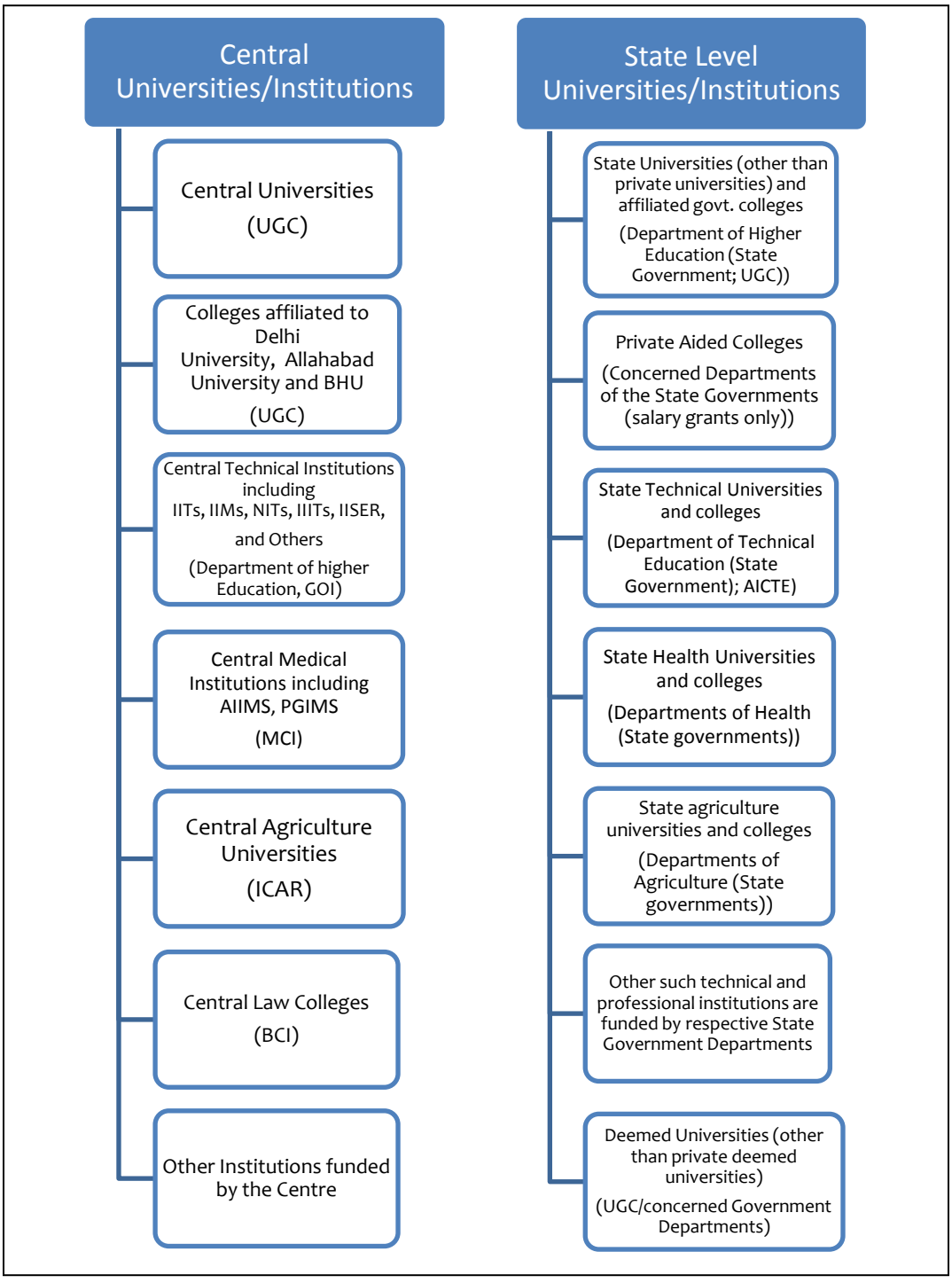
Under 14 merged schemes, UGC provides one time catch up grant to uncovered state universities (not coming under 12 (B)) and young colleges, rejuvenation of infrastructure in old colleges, colleges in backward areas, special grants for enhancement of intake capacity, equal opportunity centre, remedial and other coaching for SC/ST/OBC and minorities etc. General development plan grant to 24 deemed to be universities are also allocated for overall infrastructure development and other academic purposes. Development assistance also extended to 39 central universities including 16 new central universities.

Universities and colleges under 12 (B) are also eligible for competitive grants by UGC to undertake some new investments but the amount is too small which is also grabbed by few selective HEIs.

Apart from UGC there are other funding bodies like All India Council of Technical Education (AICTE), Medical Council of India (MCI), Pharmacy Council of India (PCI), Nursing Council of India (NCI), Bar Council of India (BCI), Council of Architecture (COA), Veterinary Council of India (VCI) and some other funding bodies basically for the technical or professional courses. They fund certain other higher education institutions falling under technical or professional disciplines. The Figure 2 shows the categorisation of different types of university or institutions and their respective funding agency.

[10] Total 9360 colleges are recognized under Section 2 (f) of the UGC Act but 8817 colleges recognized under 12-B of UGC Act for central assistance.

Figure 2: Types of Universities/Higher Education Institutions in India and their Respective Funding Agencies



Grants coming for technical and professional courses from funding bodies like AICTE, DST, DRDO, CSIR, ICMR and others many a times help in developing the infrastructure of the institution. But such kinds of grants again rely upon the relevance of research and innovation and quality of the concerned institution.

The state governments usually give two types of grants to their universities; recurring and non-recurring. The recurring grants are generally given under one of the following heads such as; maintenance grants, block grants, supplementary grants, salary grants and ad-hoc grants. The non-recurring grants are given under following heads; building grants, hostel grants, equipment grants, books and journals grants, additional grants etc. The block or maintenance grants are the most important source of financing of universities that is expected to cover the total maintenance cost of the university. The universities are given grants under three broad formulae such as, on a deficit basis, incremental basis and ad-hoc basis. Three stages are followed for such grants-in- aid. First, the universities are supposed to submit their budget to the State government. Second, the government sanctions the grants. Third, the grants are released either on instalment basis or in full without any specific rule for the time frame that may vary from state to state and university to university. There is no time frame followed for such processes. The budgetary requirements are requested before the commencement or after the commencement of the financial year. The delay of funds receipt is compensated with other alternatives like over draft, supplementary grants, curtailing of expenditure, postponing expenditure, transferring funds from one account to other (Mridula, 1985).

There are instances of inadequate funds which may further deteriorate the financial position of the university. The rising pay scales and other allowances, rising prices of educational and research inputs, other requirements like administrative, lab, library, furniture etc. are not taken into consideration while funding. The university does not have any autonomy to decide their fee structure, staff recruitment, new projects, educational programme etc. (Mridula, 1985) which further complicate the generation of resources for their survival.

There is horizontal inequality between the same kind of universities and vertical inequality between diversified universities. Colleges too have same kind of diversifications in this regard. According to the estimates of the Ministry of Statistics and Program Implementation, on an average, states only spend 10 percent of their total expenditure on capital works and 5 percent on other categories. The lion's share goes towards paying salaries of the employees of the higher education system. When the system is expanding and the crying need of the hour is to create additional

capacity to absorb larger number of students, this abysmal allocation on plan and capital items must be looked at very critically. This points to the fact that state governments require additional support to improve and strengthen their faculty (given the faculty shortages that the state governments already face) before they can be expected to improve infrastructure and make other capital investments in capacity building. Indian universities suffering from such deficits goes back to two decades back situation of Indian Universities where the need of change in the funding patterns and mechanisms were realised giving emphasis on the developmental funding (AIU, 1991). It is suggested by Twelfth plan document (GOI, 2013a) that block grants should replace line-item budgets. In the recent years, in place of scrutiny of each item of the budget, block grant is provided based on a percentage increase over previous year. On salaries and allowances, pension bills huge amount is spent and little spent on academic activities. Number of non-academic staff far exceeds the academic staff.

Still, there are instances of incapability in the utilisation of resources allocated under development grants, research grants and some other grants by the universities both at national as well as state level (GOI, 2014). So, while on the one hand, many state universities and colleges face scarcity of resources, on the other hand, there are universities and colleges incapable to utilize Central grants. This also indicates issues with the governance and management of financial resources at the level of Centre and State as well as Institutional level.

According to the Punnaya Committee Report (UGC, 1993) the input based funding that India follows promotes cost consciousness, autonomy and accountability but impacts the quality. It limits research, innovations and diversification. There may be an increase in enrolment but with the lack of education and employment linkages. The committee suggested for the basis of central university funding to be linked with its specific objectives and its pursuit of excellence, innovativeness, all-India character and the ability to provide access to weaker sections. The central universities were suggested to switch over to an appropriate mix of input funding and student funding systems. It was also suggested that the unit cost system of calculation of eligibility for grants should replace the incremental system of grants and provision of matching grant to incentivise the universities to generate additional resources.

The Central Advisory Board of Education (CABE) committee (NUEPA, 2005) suggested for an appropriate mix of block grants, maintenance grants, matching grants and development grants to meet all the important needs of HE such as, promote excellence in research, innovative teaching, achieve equity and efficiency (due to performance based grants). It further suggests for a system of grants and the

principles of grants-in-aid that is based on transparent criteria and principles and according to the requirements of diversified central and state universities, the other HEIs (technical and professional as well as general institutions).

The Twelfth plan advocates a paradigm shift in funding from demand based grants and input based funding to entitlement based grants or outcome based funding. Rashtriya Uchchatar Siksha Abhiyan (RUSA) is a flagship programme of the government that follows the Twelfth plan objective of funding. All funding under the RUSA would be norm based and future grants would be outcome dependent. As stated in RUSA document (GOI, 2013b) the funding to states would be made on the basis of critical appraisal of State Higher Education Plans (SHEPs). Commitment to certain academic, administrative and governance reforms will be a precondition for receiving funding under RUSA. State higher education councils would be the buffer organisation for the flow of funds to the universities and colleges. The National Policy on Education 1986 had emphasized about the creation of State Higher Education Councils for a similar purpose. Though the idea gained wide acceptability at that time, very few states actually went ahead to create these councils. In states where there are no such councils, the decisions about policy and planning are taken at level of bureaucrats or political executive, with no or little representation from academia. RUSA states that mandatory accreditation in India's higher education sector would enable it to become a part of the global quality assurance system.

Innovative Methods of Financing Explored in Indian Context

It is evident that the state level higher education institutions cater to the majority of enrolments in higher education. Due to fiscal constraints post structural adjustment policies and forced intrusion of market mechanisms to the higher education system the higher education institutions are compelled to mobilize their own resources to meet their fund requirements. Keeping into consideration the diversified higher education institutions across regions and locations the mobilisation capacity of a higher education institution is reduced further due to scanty public resources at their disposal.Majority of state level universities rely heavily on the affiliation fees they receive from affiliated institutions (NUEPA, 2005) and on self-financing courses as a cost sharing measure. Student loans method of financing technical or professional courses is also promoted to be a popular method of cost sharing. The education cess, education voucher method are the other cost sharing methods to finance higher education. They also resort to exploring options of cost reducing and revenue generating activities. Generating funds from starting new short courses or

programmes, research programmes and consultancy activities, alumni association, and corpus funds are encouraged.

The following are various cost reducing, cost sharing and income generating activities to mobilize additional resources to fund higher education institutions.

Cost Recovery Measures

Fees: Cost-recovery particularly in terms of student fees has become an important source of income in public institutions in many countries including India (Varghese and Panigrahi, 2015) the Twelfth plan document states that while 60% of students are enrolled in private un-aided institutions and pay full fees 40% are enrolled in public-aided institutions and pay very low fee. Hence, it suggests for increasing the fees to reasonable and sustainable levels by the state universities and institutions. The High Power Committee (AICTE, 1994) too recommended earlier about the fee enhancement in higher education. It argued that the fees for prospectus, admission, magazine, examination and such other activities hardly recover their costs. Similarly, the fees for library, laboratories, games and similar other activities have been designed in a manner that they are not self-supportive or support the activities in any significant manner. The hostels have been subsidised to an extent that even charges on consumables like electricity and water are not recovered. While electricity charges are going up, there is no monitoring of its use in most of the universities. The consumers are not identified nor billed, where necessary. Electrical appliances including heaters, often unauthorised, are in extensive use but electricity utilised to operate these are not paid for by a large number of consumers. The municipal services extended to the universities are also not paid for. There are many other aspects of university activities where subsidy has been built in which have made permanent inroads into the budgets of universities.

Universities, in many cases, are in a position to let out their facilities and services and generate income and they can design and operate courses of studies to mobilise additional resources. But over a period of time, the need to generate their income seems to have lost its emphasis. One of the major deterrent universities encounter in their efforts to generate income is the practice that any earnings so mobilized are adjusted against payable maintenance grants. This also retards universities' measures to accumulate savings. Resources saved are also adjusted against the maintenance grants, thus robbing these efforts of any impact. The High Power Committee strongly recommended that universities must be allowed to retain additional earnings and savings raised by their own efforts and these should not be adjusted against their

maintenance grants. The income so generated may be kept in a separate fund and utilised by the universities for furtherance of the objectives of the universities. By savings, the Committee implies resources economised by efficient management.

With the recommendation of the Committee the UGC developed a mechanism of providing an appropriate incentive grant in the nature of a matching grant to encourage universities to explore and mobilise additional resources.

The universities may initiate measures to rent out their facilities such as auditoria, class rooms, computer services, playgrounds, guest houses, hostels, lawns, messes, and some other facilities. This should be done judiciously and without any detriment to the academic interest and atmosphere of the institution.

A scheme of interest-free national loan scholarships was introduced in India in 1963 and subsequently revised in 2001 in the form of new educational loans scheme with the major objective that, not a single deserving student should be deprived of HE being debarred by its cost. It was revised again in 2004-05. The current loan scheme is a Loan Guarantee Authority for covering bank loans to students of accredited universities (NUEPA, 2008). The repayment of educational loan is deductible under Income Tax Act by Rs. 40,000 per annum for both principal and the interest rate maximum for a period of 8 years starting from the day of repayment that too for the students in graduate, post graduate, professional, pure or applied science courses. But, as pointed out by Tilak (2007), Panigrahi (2010) and others the under developed banking structure and various inherent problems associated with the loan method of financing put a constraint in making it a popular alternative to finance higher education.

Income Generating Measures

Courses and Programmes

It is recommended by various committees that Universities should encourage individual departments to design programmes and short-term courses of study, etc. to generate resources without any adverse impact on their main academic activities. These units should be allowed to retain a substantial portion of the income so earned for supporting their main academic activities. The universities may accept endowments, contributions, large investments, etc. to support and promote their academic activities and infrastructural development.

Research Programmes and Consultancy

Recommendations have also come up for the universities to take concrete steps to seek support for research programmes and offer consultancy services to a wide spectrum of sponsors, including departments of central and state governments, public and private sectors, industries and other bodies. These project proposals should always incorporate specific allocations for reimbursement for staff, facilities and infrastructure support. This must be used to strengthen the basic infrastructure of the universities.

The universities are suggested to constitute appropriate consultative mechanisms within the system to plan and operationalise measures for mobilising resources. This must be viewed as an effort by the institution and its members as a whole and not a function of the management alone and hence should include representatives of faculty, students, alumni, and nonteaching staff. There can be consultancy activities outside the system that can generate some funds to invest.

Alumni Association

Recommendations are for university to take the initiative to organise and set up an effective Alumni Association with a view to mobilising resources from all over the country and abroad. An Advisory Body consisting of the well wishers of the university may be set up to pursue action in this regard.

Corpus Fund

A portion of additionally generated fund may be kept aside for building up a corpus fund. The interest from the corpus may be utilised to support the activities of the university. The incentive grant may also be credited to the corpus fund. The proportion of the earning which may be credited to the corpus may be laid down by UGC in consultation with universities. This would not bar the universities to allocate larger proportion to the corpus on their own. The proportion of incentive grant to be credited to the corpus fund may also be earmarked. Apart from maintenance and development grants, UGC may provide corpus fund grant which may help institutions to build the corpus into a sizeable fund. It would be a responsibility of the central as well as state government to develop conducive environment to attract to generate endowments from individuals and corporates.

The High Powered Committee suggested that these resources generated may be used to build up the assets but recurring items of expenditure should not be covered by these resources particularly staff appointments. The income may be used to build

up the basic academic infrastructure apart from providing support to needy students. The UGC may constitute in consultation with the Government appropriate organisational mechanism to facilitate this and must extend full support to the universities. Universities which initiate and implement these measures must be given not only support and encouragement but positive incentives in the form of supporting grants, etc.

The Committee recommends that resources generated by the universities should constitute at least 15 percent of the total recurring expenditure at the end of the first five years and at least 25 percent at the end of ten years. Universities may draw up specific plans and modalities for this purpose.

So far as mobilisation of resources are concerned there will be a sort of variation amongst institutions and universities at the state level in their capacity to mobilise internal as well as external resources for themselves. It would not be easier for the colleges and universities in the interior areas to gain that much awareness as well as popularity to attract good students and faculty members and also get grants for research and promote external contacts. Similarly, the capacity to organise training programmes, engage with consultancy activities and develop short courses to generate resources varies from college to college and university to university depending upon the quality of their students and faculty members and other factors.

It is stated by the CABE Committee Report that the reduction in state funding for higher education and the corresponding cost recovery measures introduced such as; (a) increase in fees, (b) augmentation of other internal resources by the institutions of higher education, (c) re-organisation of student loan programmes, (d) introduction of self-financing courses and (e) rapid growth in privatisation of higher education produce serious problems on access, quality, equity and efficiency in higher education. Delicate balancing has to be done between mobilisation of resources and safeguarding the considerations relating to social equity, economic efficiency, and educational excellence. There is the need of focused interventions to address the challenges of access, equity and quality.

The CABE Committee 2005 pointed out towards the serious implications of reduction in state funding for higher education, corresponding cost recovery measures and rapid growth in privatization of higher education on access, quality, equity and efficiency in higher education.

In the context of public funding (having competing demands from other sectors) to the higher education institutions, it is important unlike traditional funding method

that higher education institutions utilize the funds in a successful manner. For this, autonomy and accountability of the higher education institutions that are publicly funded gets special significance. Similarly, the changing fund flow mechanisms put an impact in the decision making process of such higher education institution while competing with other higher education institutions who also explore the alternative sources to survive. It is necessary to have equity in financing (horizontal, equal type of institutions funded equally and vertical, allocation according to achievements), adequacy in financing, timely availability of finances, autonomy to plan the pattern and growth of activities, flexibility, changes in unit cost.

For allocating greater amount of funds to the State Universities, it is also true that the capacity of the State Universities to absorb funds is low and any new scheme must keep this critical bottleneck in mind. Providing larger quantum of funds cannot be the only solution; reforms in the entire state sector must be attended to simultaneously. Emphasis must be laid on removing the hurdles in fund absorption such as restrictive bureaucratic processes, unnecessary bureaucratic interference, slow decision-making and archaic administrative systems etc. Hence, the scheme must incentivise reform processes in the higher education system as well as the Universities, which can only ensure optimum and timely utilization of funds. Adequate funding and timely availability of funds in a regular basis need to be ensured. Institutions need to provide complete transparency about their financial performance and use of funds by putting their financial statements online (GOI, 2013b). It is suggested to avoid mismanagement in the utilisation of existing resources in any higher education institution. Considerable amount of savings could be done by proper management practices in the utilisation of the given resources at an institution's disposal. The Punnaya committee report has given suggestions for a normative pattern of spending resources on various activities such as: 60-65 per cent on teaching and research, 10-12 per cent on academic administration, and 20-25 per cent on auxiliary services, other departments, etc. It suggests for reduction in expenditure on non-essential activities. It is argued to establish joint review mechanism from the Central and State governments to ensure proper utilisation of funds.

Conclusion

Globally, there are different methods of resource allocation with the prominence of input based funding but the output based funding has received attention recently among various countries. Similarly, while various innovative methods are been explored internationally to finance public higher education institutions in case of a resource crunch with the massification of higher education in India the need for larger

financial resources for financing of this growing higher education sector needs special attention. It is basically the state level universities and institutions those cater to the majority of enrolments but starve for funds. Funding by UGC emerging as the major funding body in case of the general non-technical institutions but its major chunk of funds diverted towards the Central universities and the institutions of National importance which has left the universities and specially the colleges at state level with scarcity of funds.

The allocation of resources to the states for funding of higher education has been unequal due to funding mechanisms and their criteria. While funding of the universities and institutions in India by the public sector is on request based and input based but highly politically vulnerable. It is the bargaining capacity of the respective states and the respective higher education institutions those motivate the decision making of funding both at centre and state level. The major problem is the rules or criteria of funding at the central level which hardly followed by the HEIs in interior parts of the country. While UGC was established as a buffer organisation to streamline the financial resources to various universities and colleges but in practice its role has not been exhausted the way it was perceived due to incapability of the HEIs to fulfill the conditions of funding. From the State government perspective, the lack of resources due to low GSDP for many states and the variation in prioritisation of education sector in particularly higher education has also affected the availability of funds for many of the higher education institutions. Despite various policy recommendations there is lack of resources at the state level institutions which also impacts their capacity to generate additional resources to fund their respective institutions concerned.

The various innovative methods of financing in Indian context like, starting up of new courses, alumni funds, corpus funds, undertaking of research projects and consultancy activities etc. have not been explored much, so far by these fund starving state level universities and colleges. Unlike developed countries and many of the developing countries the mobilisation of resources is restricted towards tuition fees and self-financing courses. There is the need to restructure the methods of financing of higher education institutions targeting state universities and colleges who actually struggle to get funds from various alternative sources due to scarcity in the resources allocated to them by various public sources. A major research study would help to address such issues and find out the nitty-gritty of the problems faced by the universities and colleges at the state level to meet the day to day expenses of their respective HEI.

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About the paper

In the last few decades, there has been a transition in financing of higher education across the globe. While expansion of higher education in most of the developed countries is driven by public investment, most of the developing countries have experienced market mediated expansion of higher education. Allocation of funds from the government to the higher education institutions (HEIs) was based on a set of criteria. The availability of resources at the institution level was found to be inadequate to meet the growing demand for student enrolment. Consequently, many higher education institutions introduced cost recovery or cost sharing measures and resorted to various resource mobilisation strategies. The paper discusses the dynamics of resource allocation to higher education in India and different innovative methods to finance higher education in situations of budgetary cuts.

About the authors

Dr. Jinusha Panigrahi is an Assistant Professor at the Centre for Policy Research in Higher Education (CPRHE), National University of Educational Planning and Administration (NUEPA), New Delhi. She holds M.Phil./Ph.D. in Economics of Education from Jawaharlal Nehru University, New Delhi, India. She has several years of experience as a researcher and assistant professor in the field of Economics & Education. She was engaged in several research projects of the Ministry of Finance, Statistics & Programme Implementation, Commerce & Industry, Agriculture and External Affairs in her previous offices such as 'National Institute of Public Finance and Policy' and Indian Institute of Foreign Trade. She also taught Economics in several colleges of the University of Delhi. Prior to joining CPRHE she was an Assistant professor at the Institute for Studies in Industrial Development, New Delhi. She has published in journals and edited books and presented research papers in various national and international seminars and conferences. Her current research at CPRHE focuses on financing of higher education.

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